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PATENT APPLICATION
Mo-5766
Le A 32,756

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICATION OF	)
JÖRG HOFMANN ET AL	) ART UNIT: 1755
SERIAL NUMBER: 09/582,141	) EXAMINER: E. WOOD
FILED: JUNE 21, 2000	) RESPONSE TO PAPER NO.: 10
TITLE: IMPROVED DOUBLE-METAL CYANIDE CATALYSTS FOR THE PRODUCTION OF POLYETHER POLYOLS	)

REPLY BRIEF

Assistant Commissioner for Patents
Washington D.C. 20231

Sir:

The Examiner's Answer ("Answer") dated June 28, 2002, has been received and its contents noted. In response thereto, Appellants wish to reply to the arguments made by the Examiner in Paragraph 11, Sections 1 and 2 of the Answer.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 August 28, 2002
Date

Carolyn M. Sloane - Reg. No. 44,339
Name of Appellant, assignee of Registered Representative

Signature

August 28, 2002
Date

REMARKS

In Paragraph 11, Section 1 of the Answer, the Examiner argued that United States Patent No. 5,714,428 ("Le-Khac") specifically recites the use of a polycarbonate and that the carbonate is ". . . only one of nine polymers being recited as preferred catalysts of the invention." The Examiner's statement is incorrect.

Le-Khac actually discloses that **preferred** functionalized polymers which are useful in his invention have the following general formula:

$$-(CR'-CH)_N-$$
$$|$$
$$A$$

wherein R' is hydrogen, -COOH, or a C_1-C_5 alkyl group and A is one or more functional groups selected from the group consisting of --OH, --NH_2, --NHR, --NR_2, --SH, --SR, --COR, --CN, --Cl, --Br, --C_6H_4 --OH, --C_6H_4--$C(CH_3)_2OH$, --$CONH_2$, --CONHR, --CO--NR_2, --OR, --NO_2, --NHCOR, --NRCOR, --COOH, --COOR, --CHO, --OCOR, --COO--R--OH, --SO_3H, --CONH--R--SO_3H, pyridinyl, and pyrrolidonyl, in which R is a C_1 -C_5 alkyl or alkylene group and n has a value within the range of about 5 to about 5,000. *See* Le-Khac, column 4, lines 29-46. Clearly, Le-Khac discloses **many more** than nine (9) preferred polymers which are useful in his invention.

Simply because Le-Khac discloses that preferred polymers useful in his invention have the above-referenced formula does **not** mean that Le-Khac has provided a teaching or motivation for the selection of a **specific** compound (i.e., a polycarbonate) having that general formula. *See*, for example, Fujikawa v. Wattanasin, 39 U.S.P.Q.2d 1985, 1905 (1996) which states that ". . . simply because a moiety is listed as one possible choice for one position does not mean there is support for every species or sub-genus that chooses that moiety."

In Paragraph 11, Section 2 of the Answer, the Examiner argued that ". . . the list of functionalized polymers provided by Le-Khac would not require undue experimentation because Le-Khac discloses polycarbonate as one of only nine preferred species." As mentioned above, Le-Khac discloses **many more** than nine (9) preferred polymers which are useful in his invention.

Additionally, Appellants wish to remind the Board that there is an "inherent mystery" surrounding the unpredictability of the performance of catalysts and that catalytic activity **cannot** be forecast by the chemical composition of a catalyst, for catalytic activity is not understood and is not known except by **actual testing**. *See* Mobil Oil Corp. v. W.R. Grace Co., 180 U.S.P.Q. 418 (1973); Corona Co. v. Dovan Corp., 276 U.S. 358 (1928); In re Doumani, 126 U.S.P.Q. 408 (1960). The fact that the art of catalysis is so unpredictable led the Court of Customs and Patent Appeals to hold that a prior art patent which disclosed the use of more than thirty metals suitable for use as catalysts, including platinum and rhodium (Group VII metals), did not render obvious applicants' invention which claimed rhodium for use as a catalyst because the record did not indicate that there was a likelihood that platinum and rhodium are equivalent. *See* In re Doumani, 126 U.S.P.Q. 408 (1960).

Appellants contend that, given the unpredictable nature of catalysis, after reading Le-Khac, the skilled artisan would have had to pick and choose from the numerous preferred functionalized polymers disclosed by Le-Khac in order to "arrive at" Appellants' claimed invention, i.e., a double-metal cyanide catalyst composed of a polycarbonate which has increased activity and substantially reduced induction times.

CONCLUSION

For these reasons and those discussed at length in their Appeal Brief, Appellants maintain their position that the Examiner's rejections are improper. Appellants respectfully request that the Board reverse the Examiner's rejections of

Claims 1-7 and 9 under 35 U.S.C. § 103(a) in view of Le-Khac and enter allowance of these Claims.

Respectfully submitted,

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